What is claimed is:

1. A hybrid lens comprising a refractive surface that refracts incident light and a diffractive surface that diffracts light exiting the lens, the diffracting surface designed by a sag satisfying the following Equation,

$$sag = \frac{f_D + m\lambda - \sqrt{f_D^{\,2} + r^2}}{n-1},$$

wherein f_D is a distance from a center peak to a focal point of the hybrid lens, r is a height from a center axis to each peak of the hybrid lens, n is the refractive index of the hybrid lens, λ is the wavelength of incident light, and m is an integer.

2. The hybrid lens of claim 1, wherein the refractive surface has a low-order aspheric profile z satisfying the following Equation:

$$z(r) = \frac{cr^2}{1+\sqrt{1-(1+k)c^2r^2}} + Ar^4 + Br^6 + Cr^8 + Dr^{10},$$

wherein c is a curvature of the refractive surface, k is a conic coefficient representing a shape of the refractive surface, and A, B, C and D are fourth, sixth, eighth and tenth aspheric coefficients respectively.

3. The hybrid lens of claim 1, wherein the diffractive surface has a minimum diffraction pitch of 3 μm.

4. The hybrid lens of claim 1, wherein the refractive surface has a numerical aperture above 0.85.

5. The hybrid lens of claim 1, wherein the diffractive surface has a depth L_m satisfying the following Equation:

$$L_m = \frac{\lambda}{n-1}.$$